

REMARKS

Claims 38, 45-51, and 62 are pending in the present application. In the Office Action dated May 16, 2006, the drawings were objected to under 37 C.F.R. § 1.83(a) for failing to show every claimed feature. Claim 38 was rejected under 35 U.S.C. § 112, ¶2 for failing to particularly point out and distinctly claim the subject matter regarded by applicant as the invention. Claims 38 and 45, 46, 49 and 62 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,204,137 to Teo et al (“Teo”). Claims 47, 48, 50 and 51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,204,137 to Teo in view of U.S. Patent No. 6,130,102 to White, Jr., et al. (“White”).

Figures 9 and 10 of Teo disclose a semiconductor structure including a substrate 70 having spaced apart STI regions 86 distributed over the substrate 70 with source and drain junctions 110 formed in the substrate 70 between adjacent STI regions 86. The flanks of each of the STI regions 86 have a pad oxide layer 74, oxide liner layer 90, and sidewall spacer 102. As best shown in Figure 10, an epitaxial silicon layer 111 is selectively grown over the source and drain junctions 110. Each sidewall of the epitaxial silicon layers 111 abut and contact an opposing surface of an adjacent pad oxide layer 74, oxide liner layer 90, and a portion of the sidewall spacer 102. Thus, the pad oxide layers 74, oxide liner layers 90, and sidewall spacers 102 appear to provide an important function of at least partially defining the ultimate geometry of the epitaxial silicon layer 111.

In contrast to the disclosure of Teo, the embodiment of an in-process substrate shown in Figure 2 of the present application has epitaxial grown contacts 200, 202, and 204 that are free standing and substantially all of the surface area of each the sidewall surfaces of the epitaxial grown contacts 200, 202, and 204 does not contact a structure of the in-process substrate structure.

Turning now to the claims, the patentably distinct differences between the cited references and the claim language will be specifically pointed out. Claim 38 recites “[a]n in-process substrate structure including a plurality of contact regions and a plurality of non-contact regions adjacent the contact regions on a surface of a substrate, the in-process substrate structure comprising: a selectively formed single crystal contact on each contact region, each single_crystal contact being isolated from single crystal contacts on adjacent contact regions, each single crystal contact having an arcuate, convex upper surface intersected by two sidewall surfaces, the two sidewall surfaces being substantially perpendicular to the surface of the substrate, *substantially all of the surface area of each of the two sidewall surfaces does not contact another*

structure of the in-process substrate.” (Emphasis Added). As discussed in more detail above, Teo fails to disclose or fairly suggests at least one single crystal contact having the recited structure in which substantially all of the surface area of each of the sidewall surfaces thereof does not contact a structure as required by claim 38. In contrast, the sidewall surfaces of the single crystal contact disclosed in Teo (epitaxial silicon layer 111) clearly contacts another structure, namely, the surface of the pad oxide layers 74, oxide liner layers 90, and a portion of the sidewall spacers 102. The other cited references do not remedy this deficiency of Teo. Therefore, claim 38 is patentable over the cited references. Claims depending from claim 38 are also allowable due to depending from an allowable base claim and further in view of the additional limitations recited in the dependent claims.

With regard to the objection to the drawings under 37 C.F.R. § 1.83(a) for failing to show every claimed feature, this objection is moot in view of the amendment to claim 38 because Figure 2 of the present application shows epitaxial grown contacts 200, 202, and 204 in which substantially all of the surface area of each the sidewall surfaces of the epitaxial grown contacts 200, 202, and 204 does not contact a structure of the in-process substrate structure.

All of the claims remaining in the application (*i.e.*, claims 38, 45-51, and 62) are now clearly allowable. Favorable consideration and a timely Notice of Allowance are earnestly solicited. The Examiner is encouraged to call the undersigned at (206) 903-8787 if they have any questions or believe that a telephone conference would expedite allowance of this application.

Respectfully submitted,
DORSEY & WHITNEY LLP



Marcus Simon
Registration No. 50,258
Telephone No. (206) 903-8787

MS:sp

Enclosures:

Postcard

Fee Transmittal Sheet (+ copy)

DORSEY & WHITNEY LLP
1420 Fifth Avenue, Suite 3400
Seattle, WA 98101-4010
(206) 903-8800 (telephone)
(206) 903-8820 (fax)